

Fall, 2009 Dr. K. M. Smith

CHEMISTRY 2262 Section 002
(Tu/Th 1:40–3:00 pm; 103 Williams)

Office Hours: Tu 10:00-11:30 am, Th 9:00-10:30 am
 in 714 Choppin Hall, or by appointment.

Textbook: *"Organic Chemistry"*, Paula Y. Bruice, 5th Edition, Prentice Hall Publishing Company, Upper Saddle River, NJ 2006.

Supplementary Materials:

1. *"Study Guide and Solutions Manual for Organic Chemistry"*, Paula Y. Bruice, 5th Edition, Prentice Hall Publishing Company, Upper Saddle River, NJ, 2006.
2. *Organic Chemistry II as a Second Language* (Second Semester), David Klein, Wiley, John & Sons, Inc., Hoboken, NJ, 2006.
3. Lecture Notes, problem sets, and other instructional aids as posted in Moodle.

Material to be covered: Chapters 12, 13, review 14, then 15, 16, 17, 18, 19, 20, 21, and 22.

Exam Schedule and Grading:

Exam # 1 (100 points): Tuesday, **September 22nd**, 1:40-2:50 pm
 Exam # 2 (100 points): Thursday, **October 15th**, 1:40-2:50 pm
 Exam # 3 (100 points): Tuesday, **November 3rd**, 1:40-2:50 pm
 Exam # 4 (100 points): Tuesday, **November 24th**, 1:40-2:50 pm
 Final Exam (200 points): Wednesday, **December 9**, 10:00–12:00 noon

No early or late exams will be given. Exams 1-4 will be held during normal class periods. Each exam will concentrate primarily on the chemistry covered since the previous exam, but note that earlier material cannot be completely excluded because of the continuity of the course. The final exam will be comprehensive. All exams will be closed book and closed notes; molecular models can NOT be used in exams. **The course grade will be based on the BEST three of the four one hour exams scores (3x100) plus the Final Exam (200 points) for a total of 500 points.** Problem Sets will not be graded or used for course credit. **Quizzes** for credit will be given if attendance in class falls off.

What You Should Know from Chem 2261:

- How to study organic chemistry
- Basic organic chemistry principles, upon which the following depend:
- Nucleophilic Substitution (S_N1 , S_N2) and Elimination Reactions (E1, E2)
 - Addition Reactions
 - Electrophilic Aromatic Substitution Reactions
 - Acid-Base Reactions
 - Diels-Alder Reactions
 - Radical Reactions
 - Nomenclature
 - Resonance Structures, Resonance Stabilization, and Aromaticity (contd...)

- Describing a Reaction Mechanism Using Arrow Pushing
- Isomers and Stereochemistry
- Interpreting a Reaction Profile Diagram (Energy vs. Reaction Progress Plot) and Identifying Transitions States and Intermediates

Topics Covered	Reading Assignments
Mass Spectrometry, IR and UV/Visible	12.1-12.19
NMR Spectroscopy	13.1-13.13,13.19
Reactions of Benzene and Substituted Benzenes	14.11-14.19,15.1-15.13
Carbonyl Compounds I (acyl substitution)	16.1-16.21
Carbonyl Compounds II (aldehydes and ketones)	17.1-17.17
Carbonyl Compounds III (reactions at the α -C)	18.1-18.21
Oxidations and Reductions	19.1-19.9
Amines	20.1-20.10
Carbohydrates	21.1-21.18
Amino acids, Peptides and Proteins	22.1-22.11

Study Problems:

Book problems (all problems in-chapter and at the end of each chapter in your book): These problems are suggested to serve as a guide in your studying, and for use in self-testing your understanding of the subject matter in the chapters and lectures. Detailed answers to the problems are given in the Study Guide and Solutions Manual. Make certain that you have worked and understand all the problems given within chapter sections we cover before proceeding with the problems at the end of the chapters.

Problem Sets and Practice Exams will be posted in Moodle at least one week before each Exam; answers will be posted a few days later, but at least four days before any exam.

Supplemental Instruction (SI):

The name of our SI leader is Weishi Kong (wkong1@lsu.edu). Information about SI sessions and other organizational issues will be given at the beginning of every lecture. SI leaders are provided free of charge by the Center for Academic Success.

Tutoring:

Free tutoring for CHEM 2262 is available, courtesy of the Center for Academic Success, in **263 Coates** as follows [ph. 578-7744; www.cas.lsu.edu]:
 M-Th 11:00 am – 5:30 pm
 F 11:00 am – 3:00 pm

Good Luck (but try not to need it)!

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